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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/029,758

10/22/2001

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080398.P434

4698

8791 7590 09/17/2007
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EXAMINER

PADMANABHAN, KAVITA

ART UNIT

PAPER NUMBER

2161

MAIL DATE

DELIVERY MODE

09/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/029,758	Applicant(s) RISING ET AL.	
	Examiner Kavita Padmanabhan	Art Unit 2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-108 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-108 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. Claims 1-108 are pending.
2. Claims 1, 18, 19, 36, 37, 54, 55, 72, 73, 90, 91, and 108 have been amended.
3. Claims 1-108 are rejected.

Continued Examination Under 37 CFR 1.114

4. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/27/07 has been entered.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. **Claims 1-108** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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With regards to **claim 1**, there does not appear to be support in the applicant's originally filed specification for the newly added limitations, "the encoded instance document comprising the attributes and elements defined by the schema *for each of the plurality of context nodes*" and "wherein the encoded instance document is a *compressed representation of the instance document*." The remaining independent claims also recite similar language and are similarly rejected, as are their dependent claims. The applicant has pointed to page 15, lines 2-4 and lines 9-10, page 16, lines 22-24, and page 7, lines 1-2 of the specification for support; however, the examiner is still unable to find the needed support in those sections.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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9. **Claims 1-5, 7-8, 10, 12-14, 16, 18-23, 25-26, 28, 30-32, 34, 36-41, 43-44, 46, 48-50, 52, 54-59, 61-62, 64, 66-68, 70, 72-77, 79-80, 82, 84-86, 88, 90-95, 97-98, 100, 102-104, 106, and 108** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Girardot et al.** (US 6,883,137, hereinafter “Girardot”) in view of **Applicant’s Admitted Prior Art** (page 4 of applicant’s specification, hereinafter “APA”), further in view of **Hind et al.** (US 6,904,562, hereinafter “Hind”), and further in view of **Dodrill et al.** (US 6,901,431, hereinafter “Dodrill”).

In regards to **claim 1**, **Girardot** teaches a computerized method for encoding an instance document representing a content description comprising: determining a context node in the content description, the context nodes corresponding to description schemes described by the instance document (**Girardot; col. 6, lines 32-34; Fig. 1, ref character 110**), obtaining a schema defining the attributes and elements for the context node, with the attributes and elements having an order (**Girardot; col. 4, lines 24-27, 50-52; col. 5, lines 1-2, 37; col. 6, lines 21-24, 32-34; Fig. 1, ref character 110**), and generating an encoded instance document, wherein the encoded instance document is a compressed representation of the instance document (**Girardot; Abstract; Fig. 1**). **Girardot** also teaches a user requesting an XML document/context node to be encoded (**Girardot; col. 6, lines 32-34**).

Girardot does not expressly teach the instance document describing multimedia content, the schema defining required elements and optional elements, creating sections for required and optional elements and attributes, or the encoded instance document comprising the attributes and elements sections defined by the schema for each of the plurality of context nodes and a context-

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node reset code specifying an address for a next context node in the content description for each context node except a last context node.

APA teaches an instance document describing multimedia content (**APA; p3, lines 16 – p4, line 9**) and certain elements being optional (**APA; p4, lines 1-2**).

Hind teaches storing different types of information of the XML document in different sections of the encoded mXML document (**Hind; Fig. 4C; col. 8, lines 61-65; col. 9, line 24-64**) and also teaches a document comprising a plurality of context nodes, wherein the plurality of context nodes are represented as a plurality of data structures (**Hind; col. 3, lines 53-65; col. 8, lines 43-65**).

Dodrill teaches a user interface with an entry box wherein the user can enter an XML file name to be processed (**Dodrill; col. 10, lines 15-17; Fig. 4**).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to utilize the instance document of Girardot as a way of describing multimedia content, as disclosed by APA, and to include optional elements, as disclosed by APA, in the schema of Girardot, to provide a standardized description of audiovisual information (**APA; p3, lines 1-5, 16-23**) and to allow greater flexibility in the schema definition (**Hind; col. 1, line 66 – col. 2, line 9**), and to store each of required elements, optional elements, required attributes, and optional attributes in specific sections of the encoded document, as suggested by Hind, to allow more efficient parsing of the document (**Hind; col. 1, line 66 – col. 2, line 9**). It would also have been obvious to one of ordinary skill in the art at the time of the applicant's invention to allow the user to request the xml document to process, as disclosed by Girardot, using the entry field of

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Dodrill, in order to provide a user-friendly interface for a user to specify files to process **(Dodrill; col. 10, lines 15-17).**

In regards to **claims 2 and 7, Girardot, APA, Hind, and Dodrill** teach the computerized method of claim 1, including a section in the encoded document that indicates which elements and attributes exist in the xml document, obviously including the optional attributes and the optional elements since the entire xml document is being encoded, and this section constitutes a header in that it is located before the actual element or attribute data **(Hind; Fig. 4C; col. 11, lines 29-57).**

In regards to **claims 3 and 8, Girardot, APA, Hind, and Dodrill** teach the computerized method of claim 2 and 7, respectively. **Hind** further teaches using special indicator values in the encoded document in certain cases to represent processing instructions **(Hind; col. 13, lines 28-34).** **Girardot** further teaches that the order of attributes need not be strictly ordered in an xml document **(col. 4, lines 34-38).** It would have been obvious to include a special processing instruction indicator, as disclosed in Hind, to denote whether or not the attributes and elements are in the same order as listed in the schema in order to allow the encoded document to be processed more efficiently **(Hind; col. 9, lines 39-45, 57-61).**

In regards to **claims 4 and 10, Girardot, APA, Hind, and Dodrill** teach the computerized method of claim 1, including associating an attribute identifier with the value of each optional attribute present in the content description and associating an element identifier with the value of

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each optional element present in the content description (**Hind; Fig. 4C; col. 9, line 24-64**).

Hind further teaches using special indicator values in the encoded document in certain cases to represent processing instructions (**Hind; col. 13, lines 28-34**), and including a node/element count and an attribute list in the encoded xml document (**Hind; col. 3, lines 53-60**). **Girardot** further teaches that the order of attributes need not be strictly ordered in an xml document (**col. 4, lines 34-38**). It would have been obvious to include a special processing instruction indicator, as disclosed in **Hind**, to denote whether or not the attributes and elements are in the same order as listed in the schema. It also would have been obvious to calculate an attribute count, using the existing attributes, and an optional elements count separate from the overall node count, using the same method used to calculate the overall node count (**Hind; col. 9, lines 57-62**) along with the schema definition describing which elements are optional (**Girardot; col. 4, lines 24-27, 50-52; col. 5, lines 1-2, 37**) (**APA; p4, lines 1-2**), in order to allow the encoded document to be processed more efficiently (**Hind; col. 9, lines 39-45, 57-62; col. 10, lines 4-10**).

In regards to **claim 5**, **Girardot, APA, Hind, and Dodrill** teach the computerized method of claim 1, including associating an element identifier with the value for a required element (**Hind; Fig. 4C; col. 9, lines 24-64**) if the schema defines a choice of values for the corresponding required element (**Girardot; col. 2, lines 61-64**).

In regards to **claims 12, 13, 14, and 16**, **Girardot, APA, Hind, and Dodrill** teach the computerized method of claim 1, including associating an element identifier with the value of each required attribute, associating an attribute identifier with the value of each optional

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attribute, associating an element identifier with the value of each required element, and associating an element identifier with the value of each optional element present in the content description (**Hind; Fig. 4C; col. 9, lines 24-64**).

In regards to **claim 18, Girardot, APA, Hind, and Dodrill** teach the computerized method of claim 1, further comprising creating the context-node reset code (**Dodrill; col. 10, lines 15-17; Fig. 4**).

Claims 19-23, 25-26, 28, 30-32, 34, and 36 are rejected with the same rationale given for claims 1-5, 7-8, 10, 12-14, 16, and 18, respectively.

Claims 37-41, 43-44, 46, 48-50, 52, and 54 are rejected with the same rationale given for claims 1-5, 7-8, 10, 12-14, 16, and 18, respectively.

In regards to **claims 55-59, 61-62, 64, 66-68, 70, and 72**, which are directed to the reverse process, the decoding, of the method described in claims 1-5, 7-8, 10, 12-14, 16, and 18, **Girardot, APA, Hind, and Dodrill** teach the computerized method of claims 1-5, 7-8, 10, 12-14, 16, and 18. **Hind** further teaches decoding the encoded XML document using a reverse process (**Hind; Figs. 5 and 7**). Therefore, it would have been obvious to use a reverse decoding process to convert an encoded xml document into the original xml document in order to allow human-friendly viewing and editing of the document from its source file (**Hind; col. 8, lines 27-32**).

Claims 73-77, 79-80, 82, 84-86, 88, and 90 are rejected with the same rationale given for claims 55-59, 61-62, 64, 66-68, 70, and 72, respectively.

Claims 91-95, 97-98, 100, 102-104, 106, and 108 are rejected with the same rationale given for claims 55-59, 61-62, 64, 66-68, 70, and 72, respectively.

10. **Claims 6, 9, 11, 15, 17, 24, 27, 29, 33, 35, 42, 45, 47, 51, 53, 60, 63, 65, 69, 71, 78, 81, 83, 87, 89, 96, 99, 101, 105, and 107** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Girardot in view of APA, further in view of Hind, further in view of Dodrill**, and further in view of **Li et al.** (US 6,772,180, hereinafter "Li").

In regards to **claim 6, Girardot, APA, Hind, and Dodrill** teach the computerized method of claim 1, including delimiters to indicate the start and termination of different nodes/elements and attributes (**Hind; col. 9, lines 46-61; col. 10, line 44 – col. 11, line 7; Fig. 4C**).

Girardot, APA, Hind, and Dodrill do not expressly teach a schema defining boundless sequences.

Li teaches a schema defining repeating elements (**Li; col. 8, lines 11-14**).

Therefore it would have been obvious to use the delimiter disclosed by Hind to indicate the termination of a repeating, or boundless, element, as disclosed by Li, just as with all of the elements, in order to allow efficient processing of the encoded document (**Hind; col. 9, lines 46-61**).

In regards to **claims 9, 11, and 17, Girardot, APA, Hind, and Dodrill** teach the computerized method of claim 7, 10, and 16, respectively.

Girardot, APA, Hind, and Dodrill do not expressly teach a schema defining elements with multiple occurrences.

Li teaches a schema defining repeating elements (**Li; col. 8, lines 11-14**).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to base the xml document on a schema defining repeating elements, as disclosed by Li, which would therefore result in associating a repeat field with the value of an optional element in the encoded document, based on the teachings of Girardot, APA, Hind, and Dodrill, thereby indicating to the parser that an element has multiple occurrences (**Hind; col. 9, lines 39-45, 57-61**). To clarify, if an optional element has multiple occurrences, the repeat field would consist of the data values associated with every subsequent occurrence of the element after the first, in that they are repeat fields, or repeat values, of the same element type/tag and would only exist in cases where the element has multiple occurrences. However, even in this scenario, even if a value corresponds to an element that has multiple occurrences, each value would only be associated with one element identifier, since each occurrence of an element is listed individually (**Hind; Fig. 4C; lines 24-64**).

In regards to **claim 15, Girardot, APA, Hind, and Dodrill** teach the computerized method of claim 14, including delimiters to indicate the start and termination of different nodes/elements and attributes (**Hind; col. 9, lines 46-61; col. 10, line 44 – col. 11, line 7; Fig. 4C**).

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Girardot, APA, Hind, and Dodrill do not expressly teach a schema defining boundless sequences.

Li teaches a schema defining repeating elements (**Li; col. 8, lines 11-14**).

Therefore it would have been obvious to use the delimiter disclosed by Hind to indicate the termination of a repeating, or boundless, element, as disclosed by Li, just as with all of the elements, in order to allow efficient processing of the encoded document (**Hind; col. 9, lines 46-61**).

Claims 24, 27, 29, 33, and 35 are rejected with the same rationale given for claims 6, 9, 11, 15, and 17, respectively.

Claims 42, 45, 47, 51, and 53 are rejected with the same rationale given for claims 6, 9, 11, 15, and 17, respectively.

In regards to **claims 60, 63, 65, 69, and 71**, which are directed to the reverse process, the decoding, of the method described in claims 6, 9, 11, 15, and 17, respectively, **Girardot, APA, Hind, Dodrill, and Li** teach the computerized method of claims 6, 9, 11, 15, and 17. **Hind** further teaches decoding the encoded XML document using a reverse process (**Hind; Figs. 5 and 7**). Therefore, it would have been obvious to use a reverse decoding process to convert an encoded xml document into the original xml document in order to allow human-friendly viewing and editing of the document from its source file (**Hind; col. 8, lines 27-32**).

Claims 78, 81, 83, 87, and 89 are rejected with the same rationale given for claims 60, 63, 65, 69, and 71, respectively.

Claims 96, 99, 101, 105, and 107 are rejected with the same rationale given for claims 60, 63, 65, 69, and 71, respectively.

Response to Arguments

11. Applicant's arguments filed 6/27/07 with respect to the claim objections have been fully considered. The corresponding objections have been withdrawn accordingly.

12. Applicant's amendments filed 6/27/07 with respect to the 35 USC 112, 1st paragraph rejections have been fully considered but they are not persuasive. The examiner is still unable to find support in the applicant's specification for the limitations in question. To clarify, the examiner explains that an encoded document is not necessarily compressed and the concept of compression does not appear in the applicant's specification. Also, the specification does not appear to discuss generating the encoded instance document for each context-node, but rather only for a particular context node of the plurality. Therefore, the corresponding rejections of claims 1-108 have been maintained accordingly.

13. Applicant's arguments filed 6/27/07 with respect to the prior art rejections of the claims have been fully considered but they are not persuasive.

Applicant alleges that the prior art combination teaches generating a document based on a user-entered filename, allowing a user to specify a filename which points to the *current* state or *current* context node, whereas the claimed reset code is used to specify the *next* context node. Therefore, the applicant argues that the user-entered filename taught by the prior art combination

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cannot be properly interpreted as the claimed reset code. The examiner respectfully disagrees.

The examiner asserts that a user may obviously enter another filename specifying a next context node. Therefore, the prior art combination meets the limitation of a reset code as claimed.

Regarding claim 18, applicant argues that the actions of a user to enter text to request or specify an XML document/context node cannot be equated with applicant's computerized operations that create the claimed context-node reset code because a user is not equivalent to a computer and the user does not create a reset code as claimed. The examiner respectfully disagrees. The examiner first asserts that claim 18 recites "creating the context-node reset code". Claim 18 does not recite that the code must be created by the computer without input from a user, as argued by the applicant. A computerized method does not require that there be no user input, as explained more thoroughly in the previous Final Office Action, mailed 3/27/07. Therefore, since the prior art teaches a reset code being created in the context of a computerized method, even though the reset code may be created using input from a user, the claimed limitation has been met.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kavita Padmanabhan** whose telephone number is **571-272-8352**. The examiner can normally be reached on Monday-Friday, 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

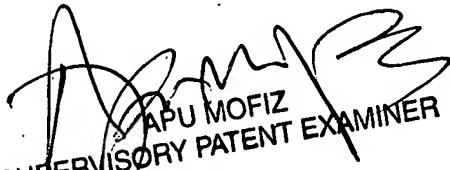
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September 10, 2007

K.P.


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